

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1-20. (Canceled)

21. (Currently Amended) A method for processing location information request initiated by a User Equipment (UE), comprising:

receiving, by a Central Network (CN), a request for location information from a target UE, and the CN obtaining a location estimate of the target UE;

~~the CN sending, by the CN, the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE; and~~

~~the V-GMLC sending receiving, by the CN, the location estimate of the target UE from the V-GMLC; and~~

~~sending, by the CN, the location estimate of the target UE to the target UE via the CN.~~

22. (Previously presented) The method according to claim 21, further comprising:

according to a pre-stored V-GMLC address information, the CN sending the location estimate of the target UE to the V-GMLC.

23. (Previously presented) The method according to claim 21, wherein, after the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE, the method further comprises:

the V-GMLC generating charging information of the target UE.

24. (Currently Amended) The method according to claim 21, wherein, after the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE, the method further comprises:

receiving, by the CN, the V-GMLC returning to the CN a response for the location estimate of the target UE from the V-GMLC.

25. (Currently Amended) The method according to claim 21, further comprising:
receiving, by the CN, a requester identifier from the target UE;

the CN providing, by the CN, the V-GMLC with the requester identifier; and so that
the V-GMLC ~~sending~~ sends the location estimate of the target UE to the requester.

26. (Currently Amended) The method according to claim 25, wherein, the step of the V-GMLC ~~sending~~ sends the location estimate of the target UE to the requester comprises:

the V-GMLC determining whether the V-GMLC can directly access the requester according to the requester identifier,

if the V-GMLC can directly access the requester according to the requester identifier, the V-GMLC directly sending the location estimate of the target UE to the requester; otherwise, according to the requester identifier, the V-GMLC finding a GMLC that can directly access the requester, and sending the location estimate of the target UE to the requester through the GMLC.

27. (Currently Amended) The method according to claim 25, wherein, after the step of the V-GMLC sending the location estimate of the target UE to the requester, the method further comprises:

~~the requester returning a first response for the location estimate of the target UE to the V-GMLC, and~~

~~the V-GMLC returning~~ receiving, by the CN, a second response for the location estimate of the target UE to the CN from the V-GMLC after the requester returns a first response for the location estimate of the target UE to the V-GMLC.

28. (Currently Amended) The method according to claim 26, wherein, after the step of the V-GMLC directly sending the location estimate of the target UE to the requester, the method further comprises:

~~the requester returning a first response for the location estimate of the target UE to the V-GMLC, and the V-GMLC returning~~ receiving, by the CN, a second response for the location estimate of the target UE to the CN from the V-GMLC after the requester returns a first response for the location estimate of the target UE to the V-GMLC; and

after the step of the V-GMLC finding the GMLC that can directly access the requester and sending the location estimate of the target UE to the requester through the GMLC, the method further comprises:

~~the requester returning~~ receiving, by the GMLC, a first response for the location estimate of the target UE to from the requester ~~the GMLC,~~

~~the GMLC returning,~~ by the GMLC, a second response for the location estimate of the target UE to the V-GMLC, and

~~the V-GMLC returning,~~ by the V-GMLC, a third response for the location estimate of the target UE to the CN.

29. (Previously presented) The method according to claim 26, wherein, the step of receiving, by the CN, the requester identifier from the target UE further comprises:

receiving, by the CN, address information of the GMLC that can access the requester from the target UE;

the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE further comprises:

the CN providing the address information of the GMLC to the V-GMLC; and

the step of the V-GMLC sending the location estimate of the target UE to the requester comprises:

the V-GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE as well as the requester identifier to the GMLC according to the address information of the GMLC; the GMLC receiving the location estimate of the

target UE and sending the location estimate of the target UE to the requester according to the requester identifier.

30. (Currently Amended) The method according to claim 29, wherein, after the step of the GMLC receiving the location estimate of the target UE and sending the location estimate of target UE to the requester according to the requester identifier, further comprising:

~~the requester returning~~ receiving, by the GMLC, a first response for the location estimate of the target UE ~~to the GMLC from the requester,~~

~~the GMLC returning,~~ by the GMLC, a second response for the location estimate of the target UE to the V-GMLC, and

~~the V-GMLC returning,~~ by the V-GMLC, a third response for the location estimate of the target UE to the CN.

31. (Previously Presented) The method according to claim 21, wherein, the CN is any one of: a Mobile Switch Center (MSC), an MSC Server and a Serving GPRS Support Node.

32. (Previously presented) The method according to claim 21, wherein, the step of receiving, by the CN, the request for location information from the target UE comprises:

receiving, by the CN, an LCS MO-LR Location Services Invoke from the target UE.

33. (Previously presented) A method for processing location information request initiated by a User Equipment (UE), comprising:

a Center Network (CN) receiving a request for location information and a requester identifier from a target UE;

the CN obtaining the location estimate of the target UE;

the CN sending the location estimate of the target UE to a V-GMLC of the target UE;

the V-GMLC sending the location estimate of the target UE to the target UE via the CN;

the V-GMLC sending the location estimate of the target UE to a H-GMLC; and

the H-GMLC sending the location estimate of the target UE to the requester.

34. (Previously presented) The method according to claim 33, wherein, after the step of the CN sending the location estimate of the target UE to a V-GMLC of the target UE, the method further comprises:

the V-GMLC generating charging information of the target UE.

35. (Previously presented) The method according to claim 33, wherein, after the step of the V-GMLC sending the location estimate of the target UE to a H-GMLC, the method further comprises;

the H-GMLC generating charging information of the target UE.

36. (Previously presented) The method according to claim 33, wherein, the step of the H-GMLC sending the location estimate of the target UE to the requester comprises:

the H-GMLC determining whether the H-GMLC can directly access the requester according to the requester identifier, if the H-GMLC can directly access the requester according to the requester identifier, the H-GMLC directly sending the location estimate of the target UE to the requester; otherwise, according to the requester identifier, the H-GMLC finding a GMLC that can directly access the requester and sending the location estimate of the target UE to the requester through the GMLC.

37. (Currently Amended) The method according to claim 33, wherein, after the step of the H-GMLC sending the location estimate of the target UE to the requester, the method further comprises:

~~the requester returning~~ receiving, by the H-GMLC, a response for the location estimate of the target UE to the H-GMLC from the requester,

~~the H-GMLC returning,~~ by the H-GMLC, a response for the location estimate of the target UE to the V-GMLC, and

~~the V-GMLC returning,~~ by the V-GMLC, a response for the location estimate of the target UE to the CN.

38. (Currently Amended) The method according to claim 36, wherein, after the H-GMLC directly sending the location estimate of the target UE to the requester, the method further comprises:

~~the requester returning-receiving, by the H-GMLC,~~ a first response for the location estimate of the target UE ~~to the H-GMLC from the requester,~~

~~the H-GMLC returning, by the H-GMLC,~~ a second response for the location estimate of the target UE to the V-GMLC and

~~the V-GMLC returning, by the V-GMLC,~~ a third response for the location estimate of target UE to the CN; and

after the step of the H-GMLC sending the location estimate of the target UE to the requester through the found GMLC, further comprising:

~~the requester returning-receiving, by the GMLC,~~ a response for the location estimate of the target UE ~~to the GMLC from the requester,~~

~~the GMLC returning, by the GMLC,~~ a response for the location estimate of the target UE to the H-GMLC,

~~the H-GMLC returning, by the H-GMLC,~~ a response for the location estimate of the target UE to the V-GMLC; and

~~the V-GMLC returning, by the V-GMLC,~~ a response for the location estimate of target UE to the CN.

39. (Currently Amended) The method according to claim 33, wherein, the step of the CN receiving the request for location information and the requester identifier from the target UE further comprises:

~~the CN receiving, by the CN,~~ address information of the GMLC that can access the requester from the target UE;

the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE further comprises:

the CN providing the address information of the GMLC to the V-GMLC;

the step of the V-GMLC sending the location estimate of the target UE to the H-GMLC further comprises:

the V-GMLC providing the address information of the GMLC to the H-GMLC; and

the step of the H-GMLC sending the location estimate of the target UE to the requester comprises:

the H-GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE as well as the requester identifier to the GMLC according to the address information of the GMLC;

the GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE to the requester according to the requester identifier.

40. (Currently Amended) The method according to claim 39, wherein, after the step of the GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE to the requester according to the requester identifier, the method further comprises:

~~the requester returning~~ receiving, by the GMLC, a first response for the location estimate of the target UE to the GMLC from the requester,

~~the GMLC returning,~~ by the GMLC, a second response for the location estimate of the target UE to the H-GMLC,

~~the H-GMLC~~ returning, by the H-GMLC, a third response for the location estimate of the target UE to the V-GMLC; and

~~the V-GMLC~~ returning, by the V-GMLC, a fourth response for the location estimate of target UE to the CN.

41. (Previously Presented) The method according to claim 33, wherein, the CN is any one of: a Mobile Switch Center (MSC), an MSC Server and a SGSN.

42. (Previously presented) The method according to claim 33, wherein, the step of the CN receiving the request for location information from the target UE comprises:
the CN receiving an LCS MO-LR Location Services Invoke to from the target UE.

43. (Previously presented) The method according to claim 21, further comprising:
sending, by the V-GMLC, the location estimate of the target UE to a GMLC that can directly access a specified requester; and
providing, by the GMLC, the specified requester with the location estimate of the target UE.

44. (Previously presented) The method according to claim 21, wherein the location estimate of the target UE carries location information of the target UE, a requester identifier, a target UE identifier and GMLC address information.

45. (New) A method for processing location information request initiated by a user equipment (UE), comprising:

receiving, by a visited gateway mobile location center (V-GMLC) of a target UE, a location estimate of the target UE from a central network (CN) after the CN receives a request for location information from the target UE, and the obtains the location estimate of the target UE; and

sending, by the V-GMLC, the location estimate of the target UE to the target UE via the CN.

46. (New) The method according to claim 45, wherein a requester identifier is sent from the target UE to the CN, the method further comprising:

receiving, the V-GMLC, the requester identifier from the CN; and

sending, by the V-GMLC, the location estimate of the target UE to the requester.

47. (New) The method according to claim 46, wherein, the step of sending, by the V-GMLC, the location estimate of the target UE to the requester comprises:

determining, by the V-GMLC, whether the V-GMLC can directly access the requester according to the requester identifier;

if the V-GMLC can directly access the requester according to the requester identifier, the V-GMLC directly sending the location estimate of the target UE to the requester; otherwise, according to the requester identifier, the V-GMLC finding a GMLC

that can directly access the requester, and sending the location estimate of the target UE to the requester through the GMLC.

48. (New) The method according to claim 47, wherein, after the step of the V-GMLC directly sending the location estimate of the target UE to the requester, the method further comprises:

receiving, by the V-GMLC, a first response for the location estimate of the target UE to from the requester, and

returning, by the V-GMLC, a second response for the location estimate of the target UE to the CN; and

after the step of the V-GMLC finding the GMLC that can directly access the requester and sending the location estimate of the target UE to the requester through the GMLC, the method further comprises:

receiving, by the GMLC, a first response for the location estimate of the target UE from the requester,

returning, by the GMLC, a second response for the location estimate of the target UE to the V-GMLC, and

returning, by the V-GMLC, a third response for the location estimate of the target UE to the CN.

49. (New) The method according to claim 47, wherein address information of the GMLC that can access the requester is sent from the target UE to the CN;

the step of receiving, by the V-GMLC of the target UE, the location estimate of the target UE from the CN further comprises:

receiving, by the V-GMLC, the address information of the GMLC from the CN; and

the step of sending, by the V-GMLC, the location estimate of the target UE to the requester comprises:

receiving, by the V-GMLC, the location estimate of the target UE; and

sending, by the V-GMLC, the location estimate of the target UE as well as the requester identifier to the GMLC according to the address information of the GMLC so that the GMLC sends the location estimate of the target UE to the requester according to the requester identifier.

50. (New) The method according to claim 49, further comprising:

receiving, by the V-GMLC, a second response for the location estimate of the target UE from the GMLC after the requester returns a first response for the location estimate of the target UE to the GMLC, and

returning, by the V-GMLC, a third response for the location estimate of the target UE to the CN.